MISSISSIPPI
ENVIRONMENTAL SENSITIVITY
INDEX METADATA

September 2000

Prepared By:

National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division
7600 Sand Point Way N.E.
Seattle, Washington 98115-6349
and
State of Mississippi

FILE DESCRIBES: Digital data for 1995 Mississippi Environmental Sensitivity Index.

FILE CREATED BY:
NOAA Office of Response and Restoration
7600 Sand Point Way N.E.
Seattle, WA 98115-6349
Phone: 206-526-6317
Fax: 206-526-6329
email: library@hazmat.noaa.gov

FILE CREATED ON: 20000912

COMMENTS: Information was developed using the U.S. Federal Geographic Data Committee's Content Standards for Digital Geospatial Metadata, June 8, 1994. The numbering scheme matches the Metadata Standard to facilitate referencing definitions of the elements. The items in **bold** are required elements and the others are optional elements. The Spatial Data Transfer Standard (SDTS), ver. 03/92, was referenced to properly identify the geographic entities.

TABLE OF CONTENTS

Page

TABLE OF CONTENTS (continued)

Page

LIST OF FIGURES

Page

1.0. IDENTIFICATION INFORMATION

1.1. CITATION

1.1.1. ORIGINATOR:

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington and the State of Mississippi

1.1.2. PUBLICATION DATE:

200009

1.1.4. TITLE:

Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Mississippi

1.1.5. EDITION:

First

1.1.6. GEOSPATIAL DATA PRESENTATION FORM:

Atlas

1.1.7. SERIES INFORMATION

1.1.7.1. SERIES NAME:

None

1.1.7.2. ISSUE IDENTIFICATION:

Mississippi

1.1.8. PUBLICATION INFORMATION

1.1.8.1. PUBLICATION PLACE:

Seattle, Washington

1.1.8.2. PUBLISHER:

National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington

1.1.9. OTHER CITATION DETAILS:

Prepared by Research Planning, Inc., Columbia, South Carolina for the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington and the Mississippi General Land Office

1.1.11. LARGER WORK CITATION:

None

1.2. DESCRIPTION

1.2.1. ABSTRACT:

This data set comprises the Environmental Sensitivity Index (ESI) maps for the shoreline of Mississippi. ESI data characterize coastal environments and wildlife by their sensitivity to spilled oil. The ESI data include information for three main components: shoreline habitats; sensitive biological resources; and human-use resources

1.2.2. PURPOSE:

The ESI data were collected, mapped, and digitized to provide environmental data for oil spill planning and response. The Clean Water Act with amendments by the Oil Pollution Act of 1990 requires response plans for immediate and effective protection of sensitive resources

1.3. TIME PERIOD OF CONTENT

1.3.1. TIME PERIOD INFORMATION

1.3.1.3. RANGE OF DATES/TIMES:

The intertidal habitats were mapped during aerial and ground surveys conducted in 1995. The biological and human-use resources data were compiled by regional biologists in 1995. The dates for these data vary and are documented in Section 2.5.1

1.4. STATUS

1.4.1. PROGRESS:

Complete

1.4.2. MAINTENANCE AND UPDATE FREQUENCY:

None planned

1.5. SPATIAL DOMAIN

1.5.1. BOUNDING COORDINATES

1.5.1.1. WEST BOUNDING COORDINATE:

-89.75°

1.5.1.2. EAST BOUNDING COORDINATE:
-88.375°

1.5.1.3. NORTH BOUNDING COORDINATE:
30.50°

1.5.1.4. SOUTH BOUNDING COORDINATE:
30.125°

1.6 KEYWORDS

1.6.1. THEME

1.6.1.1. THEME KEYWORD THESAURUS:
None

1.6.1.2. THEME KEYWORD:
Sensitivity maps; ESI; coastal resources; oil spill planning; and coastal zone management

1.6.2. PLACE

1.6.2.1. THESAURUS:
None

1.6.2.2. PLACE KEYWORD:
Mississippi Coastal Zone, Harrison County, Jackson County, Hancock County, Gulf Islands National Seashore, Cat Island, Mississippi Sound, St. Louis Bay, Biloxi Bay, and Pascagoula Bay

1.7. ACCESS CONSTRAINTS:

None

1.8. USE CONSTRAINTS:

DO NOT USE ESI MAPS FOR NAVIGATIONAL PURPOSES.
Besides the above warning, there are no use constraints on these data. Acknowledgment of the publishers and contributing sources listed in 1.11. would be appreciated in products derived from these data

1.11. DATA SET CREDIT:

This project was supported by the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Office of Response and Restoration, Hazardous Materials Response Division, Seattle, Washington and the State of Mississippi

1.13. NATIVE DATA SET ENVIRONMENT:

The software packages used to develop the atlas are Environmental Systems Research Institute's Arc/INFO® (version 7.0.3) and ORACLE® RDBMS (version 6.0.36.1.1). The hardware configuration is Hewlett Packard work-stations (models 715/50 and 712/80 with 4 X-terminals) with UNIX operating system (HP-UX Release A.09.01). The following files are included in the data set:

bio_lut.e00	biofile.e00	biores.e00
birds.e00	breed.e00	breed_dt.e00
esil.e00	esip.e00	fish.e00
habitats.e00	hydro.e00	index.e00
invert.e00	mgt.e00	nests.e00
reptiles.e00	seasonal.e00	soc_dat.e00
soc_lut.e00	socecon.e00	sources.e00
species.e00	status.e00	t_mammal.e00

The entire data set is approximately 45 megabytes.

2.0. DATA QUALITY INFORMATION

2.1. ATTRIBUTE ACCURACY

2.1.1. ATTRIBUTE ACCURACY REPORT:

The attribute accuracy is estimated to be "good" given the years of ESI experience, the data input methodology, the quality control review sessions, and the digital logical consistency checks.

2.2. LOGICAL CONSISTENCY REPORT:

The digitization of shoreline types, biological resources, and human-use resources is a complex and highly quality-controlled process. The first layer of information digitized is the ESI shoreline. Any errors in the shoreline classification are updated prior to digitization of the biological and socioeconomic layers. All layers use the shoreline as the geographic reference so that there are no slivers in the geographic coordinates. The biological data are digitized, checked using both digital and on-screen procedures, plotted, and sent out for review by the regional specialists. The edited maps are updated, checked once again, and the final product plotted (at approximately 1:50,000 scale). A team of specialists reviews the entire series of maps, checks all data, and makes final edits. The data are then merged to form the study-wide layers. The data merging includes a final quality control check where labels, chains, and polygons are checked for attribute accuracy.

To finalize the data checking process, each coverage is checked using a standardized form by two GIS personnel (a technician and the GIS manager), and each attribute database is checked using several programs that test the files for missing or duplicate data, rules for proper coding, GIS topological consistencies (such as dangles, unnecessary nodes, etc.), and ORACLE to Arc/INFO consistencies. A final review is made by the GIS manager, where the data are written to tape and the metadata are written.

After the data are delivered to NOAA, they are again subjected to a number of quality and consistency checks. In the process of checking for topological and database consistencies, new IDs and RARNUMs or HUNUMs are also generated. The new IDs are a combination of atlas number, element number, and record number. In addition, the value used to represent the element is modified to reflect the type of feature being mapped. In the case of an element that is normally represented by a point or polygon, a value of 20 is

added to the standard element value for mapping of linear features. In the case where an element usually mapped as a polygon is represented by a point, a value of 30 is added to the regular element value. The RARNUMs are also modified to include the atlas number, so multiple atlases can be combined and RARNUMs remain unique. RARNUMs are redefined on an element basis, so "resource at risk" groupings will contain only a single element. HUNUMs are also modified to include the atlas number.

ESI data are processed into multiple formats to make them useful to a wider community of GIS/mapping users. Distribution formats include ARC export, MOSS and Shape files, and MARPLOT map folders. An ArcView ESI project and ESI_Viewer product are also included on the CDs for ease of use of the ESI data. The database files are distributed both in the NOAA standard relational database format (see NOAA Technical Memorandum NOS ORCA 115) and in a simplified desktop flat file format. This metadata document includes information on both of these database formats. Section 3.0, outlining Spatial Data Organization, refers to the source files in ARC export format only.

2.3. COMPLETENESS REPORT:

Shoreline Habitat Mapping:

The shoreline habitats of Mississippi were characterized as to their sensitivity to oil spills using a shoreline classification system that has been used by NOAA for all ESI maps nationwide. Prediction of the behavior and persistence of oil on intertidal habitats is based on an understanding of the dynamics of the coastal environments, not just the substrate type and grain size. The vulnerability of a particular habitat is an integration of the following factors:

1) Shoreline type (substrate, grain size, tidal elevation, origin)
2) Exposure to wave and tidal energy
3) Biological productivity and sensitivity
4) Ease of cleanup

All of these factors are used to determine the relative sensitivity of intertidal habitats. Key to the sensitivity ranking is an understanding of the relationships between: physical processes, substrate, shoreline type, product type, fate and effect, and sediment transport patterns. The intensity of energy expended upon a shoreline by wave action, tidal currents, and river currents

directly affects the persistence of stranded oil. The need for shoreline cleanup activities is determined, in part, by the slowness of natural processes in removal of oil stranded on the shoreline.

These concepts have been used in the development of the ESI, which ranks shoreline environments as to their relative sensitivity to oil spills, potential biological injury, and ease of cleanup. Generally speaking, areas exposed to high levels of physical energy, such as wave action and tidal currents, and low biological activity rank low on the scale, whereas sheltered areas with associated high biological activity have the highest ranking.

Sensitive Biological Resources:

Regional biologists contributed the biological data. These data denote the key biological resources that are most likely at risk in the event of an oil spill. Six major categories, or ELEMENTS, of biological resources were considered during data compilation: birds, fish, habitats/rare plants, invertebrates, reptiles/amphibians, and terrestrial mammals. The ELEMENTS generally correspond to the coverage or geographic data layer names.

There are also six attribute, or data tables, BIORES, BREED, SEASONAL, SOURCES, SPECIES, and STATUS, that are used to store the complex biological data (Fig. 1). Each biological coverage is linked to the Biological Resources table (BIORES) using the unique ID and the lookup table BIO_LUT, or it can be linked directly using RARNUM. [The ID is a unique combination of the atlas number (for Mississippi this is 32), an element specific number (birds are layer 1, fish are layer 2, etc.), and a unique record number. The RARNUM represents a unique combination of species, seasonalities, concentrations, and source information. For each of these groupings, a number is generated. That number is concatenated with the atlas number to create a "resource at risk" number that is unique across atlases.]

The items in BIORES include: RARNUM, SPECIES_ID, CONC, SEASON_ID, G_SOURCE, S_SOURCE, ELEMENT, EL_SPE, and EL_SPE_SEA. SPECIES_ID is the numeric identifier of each species and is unique within each ELEMENT. CONC is the concentration of the species in an area, and when known, can be LOW, MEDIUM, or HIGH for all elements except HABITATS, which has values of CONTINUOUS, MODERATE, SPARSE, or VERY SPARCE. SEASON_ID contains a numeric identifier for the unique monthly presence and life history

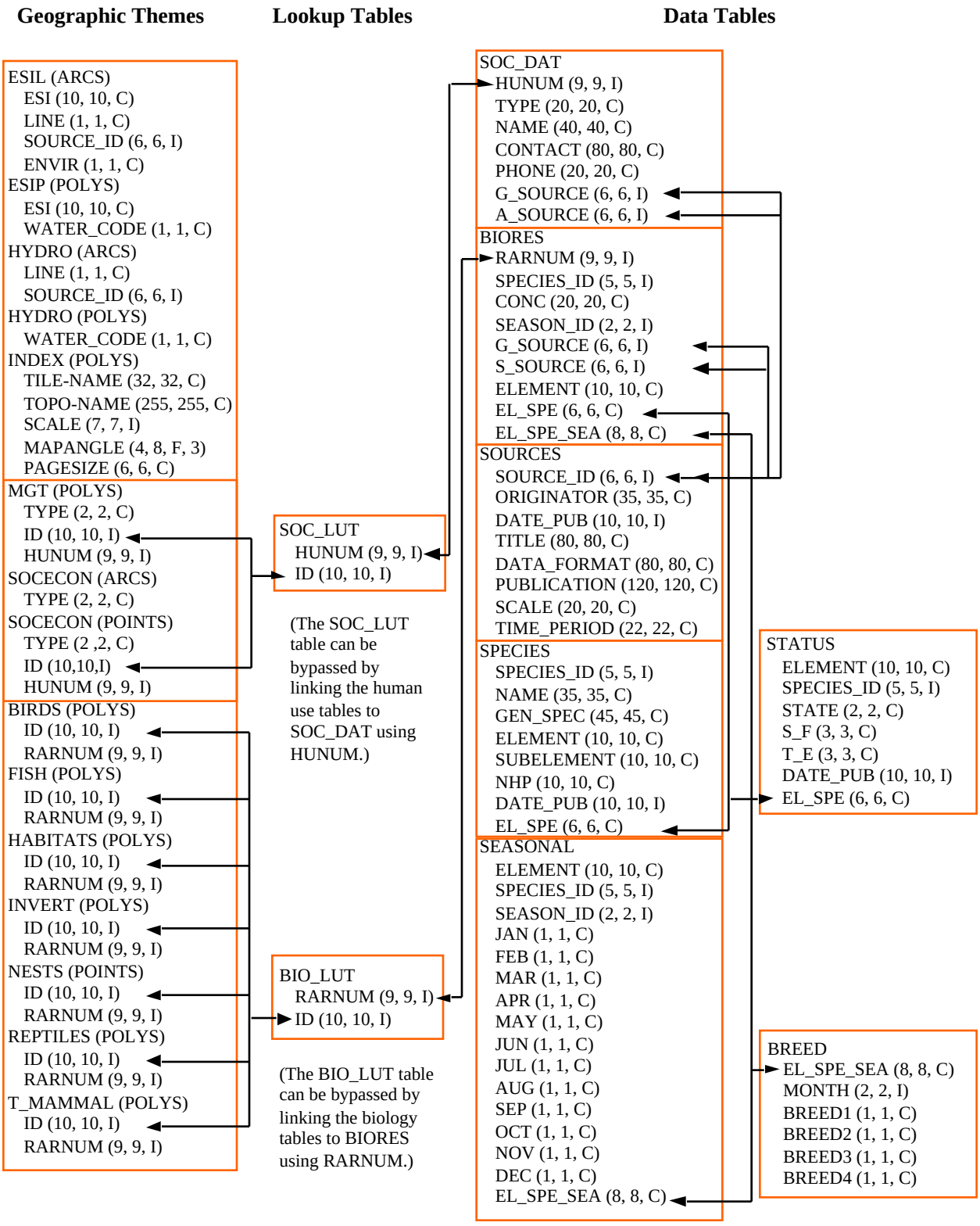

FIGURE 1. Relationship between biology data layers and attribute files.

characteristics of each species at a given location. There can be one seasonality record per species, or the same species can have different monthly presence or breeding activities at different sites. When this occurs, a new record with a different SEASON_ID is referenced.

G_SOURCE contains the SOURCE_ID for geographic information and S_SOURCE contains the SOURCE_ID for seasonality information. Both items link to the SOURCES data table. EL_SPE is a concatenation of ELEMENT and SPECIES_ID and links to other data tables (primarily the SPECIES table) and EL_SPE-SEA is a concatenation of ELEMENT, SPECIES_ID, and SEASON_ID and links to the SEASONAL and BREED data tables.

The SPECIES data table contains the SPECIES_ID (described above), common name (NAME), scientific name (GEN_SPEC), date the list of Natural Heritage Program (NHP) ranks was published (DATE_PUB), biological element (ELEMENT), biological subelement (SUBELEMENT), and the NHP global conservation status rank. The item SUBELEMENT refers to the grouping of the species:

ELEMENT	SUBELEMENT
BIRD	diving
	gull_tern
	pelagic
	raptor
	shorebird
	wading
	waterfowl
FISH	anadromous
	special
HABITAT	submerged aquatic vegetation (SAV)
INVERT	clam
	crab
	oyster
	scallop
	shrimp
REPTILE	alligator
	snake
	turtle
TERRESTRIAL MAMMAL	small mammal

The STATUS data table contains records for each species that is threatened or endangered on state or federal lists. The items include: ELEMENT, SPECIES_ID, STATE (two-letter state abbreviations), S_F (state or federal status), T_E (threatened or endangered status), DATE_PUB (the date the atlas was published when the given state and federal listings were in effect), and EL_SPE.

The SEASONAL data table indicates the presence of a particular species in a particular location by month (JAN-DEC). The BIORES table is linked to the SEASONAL table using the item EL_SPE_SEA (a concatenation of the first letter of the ELEMENT, SPECIES_ID, and SEASON_ID).

The BREED data table contains the life stage or life history data for each unique combination of ELEMENT, SPECIES_ID, and SEASON_ID (or EL_SPE_SEA). It contains up to 12 records corresponding to each month of the year that a species is present in that location. The categories of the items BREED1 through BREED4 for each element are:

ELEMENT	BREED 1	BREED 2	BREED 3	BREED 4
BIRD	nesting	laying	hatching	fledging
FISH	spawning	outmigration	juvenile/larvae	
INVERT	spawning	larvae/juvenile	mating	
REPTILE	nesting	hatching	internesting	

NOTE: There are no BREED variables for HABITAT and TERRESTRIAL MAMMALS.

The SOURCES data table contains metadata for each biological and human-use source listed in the ESI atlas. The items in SOURCES are: SOURCE_ID, ORIGINATOR (author), DATE_PUB (date of publication), TITLE (title of the data set), DATA_FORMAT (digital type, hardcopy maps, etc.), PUBLICATION (additional citation), SCALE (source scale denominator), and TIME_PERIOD (beginning and ending dates of original data collection). The SOURCES data table is linked to all biological and human-use data at the feature-level.

Due to the complexity of the relational database model, the biological data items are post-processed into a flat file format. This file is entitled BIOFILE and it may be used in place of the relational files to ease simple data queries. The items in the flat file are ELEMENT, SUBELEMENT, NAME, GEN_SPEC, S_F, T_E, NHP, DATE_PUB, CONC, JAN, FEB, MAR, APR, MAY, JUN, JUL,

AUG, SEP, OCT, NOV, DEC, BREED1, BREED2, BREED3, BREED4, RARNUM, G_SOURCE, S_SOURCE and BREED. All of these items are the same as their counterparts in the individual files described above, except the BREED1–BREED4 items. BREED is a newly generated variable used to link to the BREED_DT file, a modified, more compact version of the aforementioned BREED file. Breed1–Breed4 give a text summary of when each life stage occurs within that polygon. The life stages referred to are the same as those listed in the previous table. The link to the BIOFILE may be made through BIO_LUT using ID to link to RARNUM, or it may be linked directly to the RARNUM in each of the biology cover's attribute files. As mentioned, BREED_DT is an auxiliary support file to the flat file structure, which allows the user to do searches based on month for seasonal breeding activities. The link from the flat file to BREED_DT is the BREED item. A second supporting data file is SOURCES. This is the same as the SOURCES file described above and the link from the flat file is both G_SOURCE and S_SOURCE.

It should be noted that although the flat file eases data query, it is not a normalized database structure, and actual updates performed by the states and other responsible agencies should be done using the relational files.

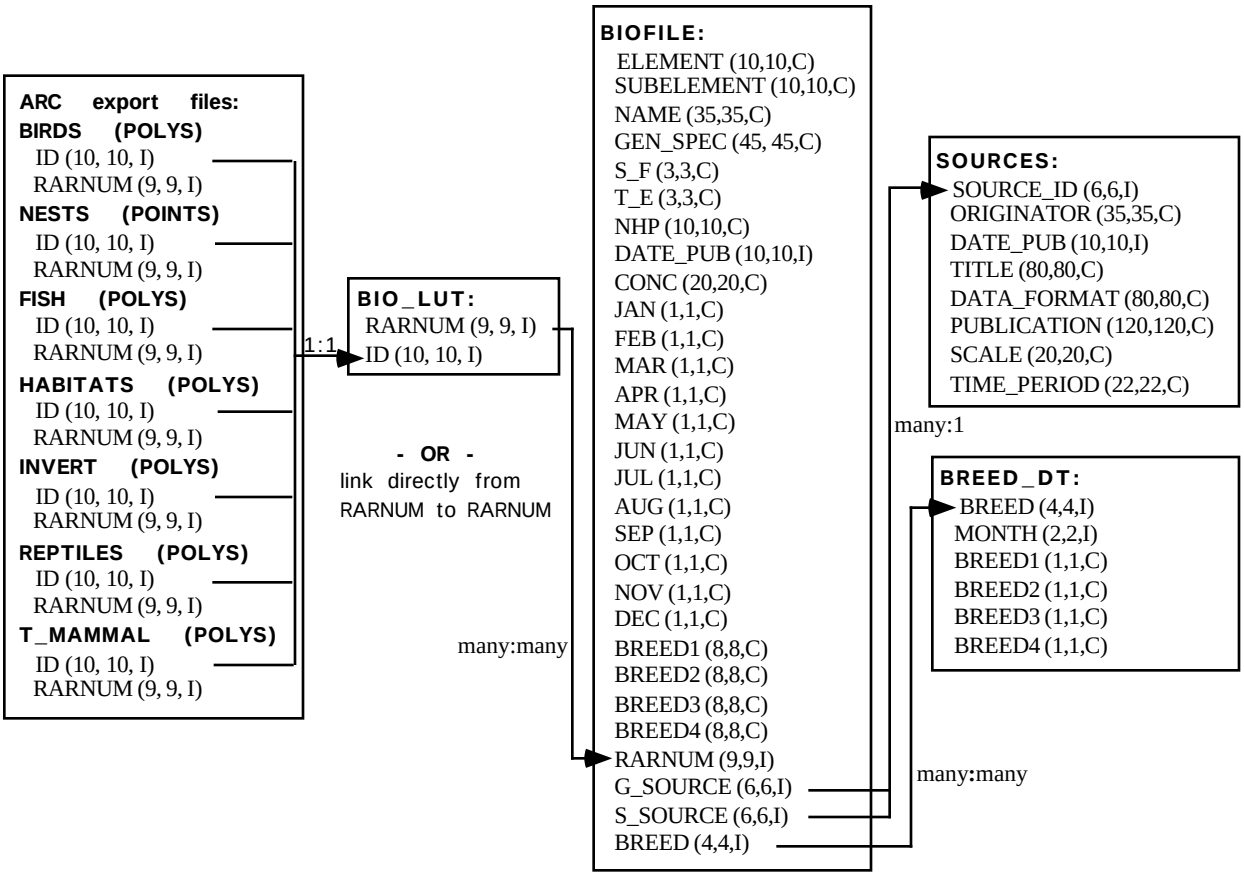

FIGURE 2. Relationship of the BIOFILE to the biological covers and the supplementary BREED_DT and SOURCES data tables.

Human-Use Resources:

Several human-use, or socioeconomic, features are included in ESI atlases. Entity points and complete chains (arcs) are digitized into the data layer SOCECON and managed area polygonal data are stored in the MGT data layer. Both data sets are linked to the data table SOC_DAT using the SOC_LUT lookup table and the items HUNUM and ID. HUNUM is a unique reference number concatenated with the atlas number (32). ID is a concatenation of atlas number (32), element number (SOCECON = 10 and MGT = 11), and unique record number.

All features are attributed using the item TYPE and identify the type of feature:

Entity Points		**Polygons**	
Feature	**TYPE**	**Feature**	**TYPE**
Airport	A	National Park	NP
Archaeological Site	AS	Recreational Beach	B
Boat Ramp	BR	Regional or State Park	P
Ferry	F	Wildlife Refuge	WR
Marina	M		
Recreational Fishing	RF		
Complete Chains			
Feature	**TYPE**		
State Border	SB		

The table SOC_DAT contains the human-use number (HUNUM), feature type (TYPE), name of the facility (NAME), contact person (CONTACT), telephone number (PHONE), geographic source (G_SOURCE), and attribute source (A_SOURCE).

2.4. POSITIONAL ACCURACY

2.4.1. HORIZONTAL POSITIONAL ACCURACY

2.4.1.1. HORIZONTAL POSITIONAL ACCURACY REPORT:

The ESI data use USGS 1:24,000 topographic quadrangles as the base map. It is estimated that the ESI has a minimum mapping unit of 50 feet. The biological data sets are developed primarily using regional experts who estimate concentration areas. Unlike shorelines, which maintain relative spatial stability through time, the biological data by nature migrate across the landscape. Therefore, the 1:24,000 USGS quadrangles are used as a base map in gathering the data but the data have “fuzzy” boundaries that must be understood when utilizing this information.

2.5. LINEAGE

2.5.1. SOURCE INFORMATION:

Coverage or theme name: BIRDS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Gary Hopkins, National Park Service	1995	Distribution of Gulf Islands National Seashore Birds	Expert knowledge and maps	Unknown	24000	1995
Jennifer Buchanan, Department of Marine Resources	1995	Distribution of Nearshore Birds Distribution	Expert knowledge and maps	Unknown	24000	1995
Thomas Mann, Natural Heritage Program	1995	Mississippi Natural Heritage Program Database	Digital ASCII	N/A	Unknown	1970-1995
U.S. Fish and Wildlife Service	1983	Atlas of Wading Bird and Seabird Nesting Colonies in Coastal Louisiana, Mississippi, and Alabama: 1983	Report	Report No. FWS/OBS-84/13	N/A	1983

2.5.1. SOURCE INFORMATION:

Coverage or theme name: ESIL

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Steve Ovainke, Mississippi Department of Environmental Quality	1994	Environmental Sensitivity Index draft maps	Videotape and maps	N/A	24000	1994
U.S. Fish and Wildlife Service	Varies	Mississippi State Geographic Database (MARIS)	Digital complex polygons and chains	Data are from the National Wetlands Inventory	24000	Varies
U.S. Geological Survey	Varies	7.5 minute topographic maps	Maps	USGS, Reston, Va.	24000	Varies

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Research Planning, Inc.	N/A	ESI Shorelines	Maps	N/A	24000	1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: ESIP

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Steve Ovainke, Mississippi Department of Environmental Quality	1994	Environmental Sensitivity Index draft maps	Videotape and maps	N/A	24000	1994
U.S. Fish and Wildlife Service	Varies	Mississippi State Geo-graphic Database (MARIS)	Digital complex polygons and chains	Data are from the National Wetlands Inventory	24000	Varies
U.S. Geological Survey	Varies	7.5 minute topographic maps	Maps	USGS, Reston, Va.	24000	Varies
Research Planning, Inc.	N/A	ESI Shorelines	Maps	N/A	24000	1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: FISH

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Gulf Coast Research Lab	1973	Cooperative Gulf of Mexico Estuarine Inventory and Study, Mississippi	Report	Gulf Coast Research Laboratory, Ocean Springs, Miss.	N/A	1968-1969
Jennifer Buchanan, Department of Marine Resources	1995	Distribution of Nearshore Fish	Expert knowledge and maps	Unknown	24000	1995

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Mississippi Department of Wildlife Conservation, Bureau of Marine Resources	1984	A Contingency Guide to the Protection of Mississippi Coastal Environments from Spilled Oil	Maps	Mississippi Department of Conservation,m Bureau of Marine Resources, Long Beach, Miss.	40000	1984

2.5.1. SOURCE INFORMATION:

Coverage or theme name: HABITATS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Gary Hopkins, National Park Service	1995	Distribution of Gulf Islands National Seashore Seagrass	Maps	Unknown	24000	1995
Jennifer Buchanan, Department of Marine Resources	1995	Distribution of Nearshore Seagrass	Expert knowledge and maps	Unknown	24000	1995
Heidi Roberts, Gulf Regional Planning Commission	1995	Environ-mentally Sensitive Area maps	Maps	None	40000	Unknown
Larry Handley, National Biological Service	1995	National Biological Service, Submerged Aquatic Vegetation	Expert knowledge and maps	Unknown	24000	1992
Mississippi Department of Wildlife Conservation, Bureau of Marine Resources	1984	A Contingency Guide to the Protection of Mississippi Coastal Environments from Spilled Oil	Maps	Mississippi Department of Conservation,m Bureau of Marine Resources, Long Beach, Miss.	40000	1984

2.5.1. SOURCE INFORMATION:

Coverage or theme name: HYDRO

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Steve Ovainke, Mississippi Department of Environmental Quality	1994	Environmental Sensitivity Index draft maps	Videotape and maps	N/A	24000	1994
U.S. Fish and Wildlife Service	Varies	Mississippi State Geographic Database (MARIS)	Digital complex polygons and chains	Data are from the National Wetlands Inventory	24000	Varies
U.S. Geological Survey	Varies	7.5 minute topographic maps	Maps	USGS, Reston, Va.	24000	Varies
Research Planning, Inc.	N/A	ESI Shorelines	Maps	N/A	24000	1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: INDEX

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Research Planning, Inc.	1995	Index for Mississippi ESI maps	Digital complex polygons	Bill Holton, GIS Analyst	24000	1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: INVERT (formerly SHELLFSH)

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denominator	2.5.1.4 Source Time Period
Gulf Coast Research Lab	1973	Cooperative Gulf of Mexico Estuarine Inventory and Study, Miss.	Report	Gulf Coast Research Laboratory, Ocean Springs, Miss.	N/A	1968-1969

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Jennifer Buchanan, Department of Marine Resources	1995	Distribution of Nearshore Shellfish	Expert knowledge and maps	N/A	24000	1995
Heidi Roberts, Gulf Regional Planning Commission	1995	Environ-mentally Sensitive Area maps	Maps	None	40000	Unknown
David M. Nelson, and regional, state, and local scientists	1989	NOAA's Estuarine Living Marine Resources Program: Distribution and Abundance of Fishes and Invertebrates in Gulf of Mexico Estuaries: Volume 1: Data Summaries	Digital, ASCII	N/A	Varies	1989
Office of Oceanography and Marine Assessment, National Ocean Service and the Southeast Fisheries Center	1985	Gulf of Mexico Coastal and Ocean Zones Strategic Assessment: Data Atlas	Expert knowledge and maps	NOAA, Department of Commerce, Washington, D.C.	Varies	1985

2.5.1. SOURCE INFORMATION:

Coverage or theme name: MGT

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Gary Hopkins, National Park Service	1995	Distribution of Gulf Islands National Seashore Human-use Features	Expert knowledge and maps	Unknown	24000	1995
Jennifer Buchanan, Department of Marine Resources	1995	Distribution of Nearshore Human-use Features	Expert knowledge and maps	Unknown	Varies	1995
Heidi Roberts, Gulf Regional Planning Commission	1995	Environ-mentally Sensitive Area maps	Maps	None	40000	Unknown

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Keith Baca and Joseph Gilinberti, Mississippi Department of Archives and History	1995	Archaeological and Historical Sites	Hardcopy maps and digital tables	N/A	24000	1995
Research Planning, Inc.	1995	ESI Shoreline	Overflight maps	N/A	24000	1995
U.S. Geological Survey	Varies		Topographic maps	USGS, Reston, Va.	24000	Varies

2.5.1. SOURCE INFORMATION:

Coverage or theme name: NESTS

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Gary Hopkins, National Park Service	1995	Distribution of Gulf Islands National Seashore Birds	Expert knowledge and maps	Unknown	24000	1995
Jennifer Buchanan, Department of Marine Resources	1995	Distribution of Nearshore Birds	Expert knowledge and maps	Unknown	24000	1995
Thomas Mann, Mississippi Natural Heritage Program	1995	Mississippi Natural Heritage Program Database	Digital ASCII	N/A	Unknown	1970-1995
U.S. Fish and Wildlife Service	1983	Atlas of Wading Bird and Seabird Nesting Colonies in Coastal Louisiana, Mississippi, and Alabama: 1983	Report	Report No. FWS/OBS-84/13	N/A	1983

2.5.1. SOURCE INFORMATION:

Coverage or theme name: REPTILES

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Gary Hopkins, National Park Service	1995	Distribution of Gulf Islands National Seashore Reptiles	Expert knowledge and maps	N/A	24000	1995
Thomas Mann, Mississippi Natural Heritage Program	1995	Mississippi Natural Heritage Program Database	Digital ASCII	N/A	Unknown	1970-1995

2.5.1. SOURCE INFORMATION:

Coverage or theme name: SOCECON

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Gary Hopkins, National Park Service	1995	Distribution of Gulf Islands National Seashore Human-use Features	Expert knowledge and maps	Unknown	24000	1995
Jennifer Buchanan, Department of Marine Resources	1995	Distribution of Nearshore Human-use Features	Expert knowledge and maps	Unknown	Varies	1995
Heidi Roberts, Gulf Regional Planning Commission	1995	Environ-mentally Sensitive Area maps	Maps	None	40000	Unknown
Keith Baca and Joseph Gilinberti, Mississippi Department of Archives and History	1995	Archaeological and Historical Sites	Hardcopy maps and digital tables	N/A	24000	1995
Research Planning, Inc.	1995	ESI Shoreline	Overflight maps	N/A	24000	1995
U.S. Geological Survey	Varies		Topographic maps	USGS, Reston, Va.	24000	Varies

2.5.1. SOURCE INFORMATION:

Coverage or theme name: T_MAMMAL

2.5.1.1. SOURCE CITATION

2.5.1.1.1 Originator	2.5.1.1.2 Publication Date	2.5.1.1.4 Title	2.5.1.1.6 Geospatial Data Presentation Form	2.5.1.1.8 Publication Information	2.5.1.2 Source Scale Denomi-nator	2.5.1.4 Source Time Period
Gary Hopkins, National Park Service	1995	Distribution of Gulf Islands National Seashore Terrestrial Mammals	Expert knowledge and maps	Unknown	24000	1995
Jennifer Buchanan, Department of Marine Resources	1995	Distribution of Nearshore Terrestrial Mammals	Expert knowledge and maps	N/A	24000	1995

2.5.2. PROCESS STEP

2.5.2.1. PROCESS DESCRIPTION:

The digitization of ESI, biological resources, and human-use resources is a complex and highly quality-controlled process. In order to facilitate digitizing, the entire study area was split into individual quadrangles using a map index coverage. The first layer of information digitized is the ESI. Any errors in the shoreline classification are updated prior to digitization of the biological and socioeconomic layers. All data use the shoreline as the geographic reference so that there are no slivers in the geographic layers. The biological information is compiled onto 1:24,000 USGS topographic quadrangles by an in-house biological expert using the data from regional specialists in the form of verbal discussions, maps, tables, charts, and written descriptions of wildlife distributions. The data are digitized, checked using both digital and on-screen procedures, plotted, and sent out for review by the regional specialists. The edited maps are updated on the computer, checked once again, and plotted at final map scale. A team of specialists reviews the entire series of maps, checks all data, and makes final edits. The data are merged to form the study-wide layers described in

this document. The data merging includes a final quality control check where topological consistency, rules for geography, and database to geography are checked and reported to the GIS manager.

2.5.2.3. PROCESS DATE:
199512

2.5.2.6. PROCESS CONTACT

2.5.2.6.1. CONTACT PERSON PRIMARY

2.5.2.6.1.1. CONTACT PERSON:
Jill Petersen

2.5.2.6.1.2. CONTACT ORGANIZATION:
NOAA, Office of Response and Restoration

2.5.2.6.3. CONTACT POSITION:
GIS Manager

2.5.2.6.4. CONTACT ADDRESS

2.5.2.6.4.1. ADDRESS TYPE:
Physical Address

2.5.2.6.4.2. ADDRESS:
7600 Sand Point Way N.E.

2.5.2.6.4.3. CITY:
Seattle

2.5.2.6.4.4. STATE OR PROVINCE:
WA

2.5.2.6.4.5. POSTAL CODE:
98115-6349

2.5.2.6.5. CONTACT VOICE TELEPHONE:
(206) 526-6944

2.5.2.6.7. CONTACT FACSIMILE TELEPHONE:
(206) 526-6329

2.5.2.6.8. CONTACT ELECTRONIC MAIL ADDRESS:
jill_petersen@hazmat.noaa.gov.us

3.0. SPATIAL DATA ORGANIZATION INFORMATION

3.2. DIRECT SPATIAL REFERENCE METHOD:

Vector

3.3. POINT AND VECTOR OBJECT INFORMATION

3.3.1. SDTS TERMS DESCRIPTION:

3.3.1.1. SDTS POINT AND VECTOR OBJECT TYPE, and

3.3.1.2. POINT AND VECTOR OBJECT COUNT:

Theme	Universe Polygon	GT-Polygons	Area Points	Complete Chains	Line Segments	Label Points	Entity Points	Nodes
BIRDS	1	87	87	354	26,739			293
ESIL	1	557	557	3,579	146,423			3,623
ESIP	1	2,387	2,387	2,538	122,804			2,506
FISH	1	622	622	1,041	148,816			961
HABITATS	1	76	76	101	7,140			91
HYDRO	1	3,050	3,050	12,016	248,711	283		12,242
INDEX	1	29	29	72	72			44
INVERT	1	653	653	995	143,712			941
MGT	1	26	26	27	1,892			26
NESTS							14	
REPTILES	1	31	31	202	16,381			194
SOCECON				4	601		417	9
T_MAMMAL	1	28	28	198	15,773			190

This page intentionally left blank

4.0. SPATIAL REFERENCE INFORMATION

4.1. HORIZONTAL COORDINATE SYSTEM DEFINITION

4.1.1. GEOGRAPHIC

4.1.1.1. LATITUDE RESOLUTION

0.00005

4.1.1.2. LONGITUDE RESOLUTION

0.00005

4.1.1.3. GEOGRAPHIC COORDINATE UNITS:

Decimal Degrees

4.1.4. GEODETIC MODEL

4.1.4.1. HORIZONTAL DATUM NAME:

North American Datum of 1927

4.1.4.2. ELLIPSOID NAME:

Clarke, 1866

4.1.4.3. SEMI-MAJOR AXIS:

6,378,206.4

4.1.4.4. DENOMINATOR OF FLATTENING RATIO:

294.98

This page intentionally left blank

5.0. ENTITY AND ATTRIBUTE INFORMATION

5.1. DETAILED DESCRIPTION: BIO_LUT

Lookup table to link biology coverages to the BIORES data table.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	RARNUM	integer
	ID	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:
RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:
An identifier that links the BIO_LUT table to the BIORES table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
ID

5.1.2.2. ATTRIBUTE DEFINITION:
An identifier that links the biology coverages to the BIO_LUT table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

This page intentionally left blank

5.1. DETAILED DESCRIPTION: BIOFILE

The data table BIOFILE is a flat file format that provides all of the biology attributes contained in the relational data tables when used in conjunction with the supplementary tables BREED_DT and SOURCES.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	ELEMENT	character
	SUBELEMENT	character
	NAME	character
	GEN_SPEC	character
	S_F	character
	T_E	character
	NHP	character
	DATE_PUB	integer
	CONC	character
	JAN	character
	FEB	character
	MAR	character
	APR	character
	MAY	character
	JUN	character
	JUL	character
	AUG	character
	SEP	character
	OCT	character
	NOV	character
	DEC	character
	BREED1	character
	BREED2	character
	BREED3	character
	BREED4	character
	RARNUM	integer
	G_SOURCE	integer
	S_SOURCE	integer
	BREED	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Major categories of biological data

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
BIRD	Birds
FISH	Fish
HABITAT	Habitats and Rare Plants
INVERT	Invertebrates
REPTILE	Reptiles and Amphibians
T_MAMMAL	Terrestrial Mammals

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SUBELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Species subgroup

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

alligator
anadromous
clam
crab
diving
gull_tern
oyster
pelagic
raptor
sav

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

scallop
shorebird
shrimp
small mammal
snake
special
turtle
wading
waterfowl

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

NAME

5.1.2.2. ATTRIBUTE DEFINITION:

Species common name

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

American alligator
American bittern
American coot
American oyster (eastern)
American oystercatcher
American white pelican
American wigeon
Atlantic bay scallop
Atlantic croaker
Atlantic sharpnose shark
Atlantic spadefish
Atlantic sturgeon
Atlantic thread herring
Bald eagle
Bay anchovy
Beaver
Black drum

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Black rail
Black skimmer
Black tern
Black-bellied plover
Black-crowned night heron
Blacktip shark
Blue catfish
Blue crab
Blue runner
Bluefish
Bluegill
Blue-winged teal
Bonapartes gull
Brackishwater clam
Brown pelican
Brown shrimp
Bufflehead
Bull shark
Canvasback
Caspian tern
Cattle egret
Channel catfish
Clapper rail
Cobia
Common goldeneye
Common loon
Common moorhen
Crevalle jack
Double-crested cormorant
Florida pompano
Gadwall
Gafftopsail catfish
Gag grouper
Gizzard shad
Gray snapper
Great blue heron
Great egret
Greater scaup
Green-backed heron
Green-winged teal
Gulf butterfish
Gulf flounder

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Gulf killifish
Gulf kingfish
Gulf menhaden
Gulf salt marsh snake
Gulf sturgeon
Halfbeak
Hardhead catfish
Harvestfish
Herring gull
Hooded merganser
Horned grebe
Inland silverside
Killdeer
King mackerel
King rail
Ladyfish
Lane snapper
Largemouth bass
Laughing gull
Least bittern
Least tern
Lesser scaup
Little blue heron
Little tunny
Loggerhead sea turtle
Longear sunfish
Longnose killifish
Mallard
Marsh killifish
Mink
Mississippi diamondback terrapin
Mississippi sandhill crane
Mottled duck
Muskrat
Northern gannet
Northern harrier
Northern kingfish
Northern pintail
Northern raccoon
Northern shoveler
Nutria
Oldsquaw

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Osprey
Peregrine falcon
Pied-billed grebe
Pigfish
Pinfish
Pink shrimp
Piping plover
Purple gallinule
Rainwater killifish
Red drum
Red snapper
Red-breasted merganser
Reddish egret
Redear sunfish
Redhead
Ring-billed gull
Ring-necked duck
River otter
Rock sea bass
Rough scad
Rough silverside
Royal tern
Sailfin molly
Sand seatrout
Sanderling
Sandwich tern
Scaled sardine
Seagrass
Seatrout
Semipalmated plover
Sheepshead
Sheepshead minnow
Shiners
Silver perch
Silver seatrout
Skipjack herring
Snow goose
Snowy egret
Snowy plover
Sooty tern
Southern flounder
Southern hake

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Southern kingfish (whiting)
Southern quahog (hard clam)
Spanish mackerel
Spinner shark
Spot
Spotfin mojarra
Spotted hake
Spotted seatrout
Spotted sunfish
Star drum
Stone crab
Striped anchovy
Striped bass
Striped mullet
Tarpon
Threadfin shad
Tricolored heron
White ibis
White mullet
White shrimp
Whitespotted greenling
Wild hog
Willet
Wilsons plover
Yellow rail
Yellow-crowned night heron

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

GEN_SPEC

5.1.2.2. ATTRIBUTE DEFINITION:

Species scientific name

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Acipenser oxyrhynchus
Acipenser oxyrhynchus desotoi
Alligator mississippiensis
Alosa chrysochloris
Anas acuta
Anas americana
Anas clypeata
Anas crecca
Anas discors
Anas fulrigula
Anas platyrhynchos
Anas strepera
Anchoa hepsetus
Anchoa mitchilli
Archosargus probatocephalus
Ardea herodias
Argopecten irradians
Arius felis
Aythya affinis
Aythya americana
Aythya collaris
Aythya marila
Aythya valisineria
Bagre marinus
Bairdiella chrysoura
Botaurus lentiginosus
Brevoortia patronus
Bubulcus ibis
Bucephala albeola
Bucephala clangula
Butorides striatus
Calidris alba
Callinectes sapidus
Caranx crysos
Caranx hippos
Carcharhinus brevipinna
Carcharhinus leucas
Carcharhinus limbatus
Caretta caretta
Casmerodius albus
Castor canadensis

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Catoptrophorus semipalmatus
Centropristis philadelphica
Chaetodipterus faber
Charadrius alexandrinus
Charadrius melodus
Charadrius semipalmatus
Charadrius vociferus
Charadrius wilsonia
Chen caerulescens
Chlidonias niger
Circus cyaneus
Clangula hyemalis
Coturnicops noveboracensis
Crassostrea virginica
Cynoscion arenarius
Cynoscion nebulosus
Cynoscion nothus
Cynoscion sp.
Cyprinodon variegatus
Dorosoma cepedianum
Dorosoma petenense
Egretta caerulea
Egretta rufescens
Egretta thula
Egretta tricolor
Elops saurus
Eucinostomus argenteus
Eudocimus albus
Euthynnus alletteratus
Falco peregrinus
Fulica americana
Fundulus confluentus
Fundulus grandis
Fundulus similis
Gallinula chloropus
Gavia immer
Grus canadensis pulla
Haematopus palliatus
Haliaeetus leucocephalus
Harengula jaguana
Hexagrammos stelleri
Hyporhamphus unifasciatus

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Ictalurus furcatus
Ictalurus punctatus
Ixobrychus exilis
Lagodon rhomboides
Larus argentatus
Larus atricilla
Larus delawarensis
Larus philadelphia
Laterallus jamaicensis
Leiostomus xanthurus
Lepomis macrochirus
Lepomis megalotis
Lepomis microlophus
Lepomis punctatus miniatus
Lophodytes cucullatus
Lucania parva
Lutjanus campechanus
Lutjanus griseus
Lutjanus synagris
Lutra canadensis
Malaclemys terrapin pileata
Megalops atlanticus
Membras martinica
Menidia beryllina
Menippe spp.
Menticirrhus americanus
Menticirrhus littoralis
Menticirrhus saxatilis
Mercenaria campechiensis
Mergus serrator
Micropogonias undulatus
Micropterus salmoides
Morone saxatilis
Morus bassanus
Mugil cephalus
Mugil curema
Mustela vison
Mycteroperca microlepis
Myocastor coypus
Nerodia clarkii
Notropis spp.
Nyctanassa violacea

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Nycticorax nycticorax
Ondatra zibethicus
Opisthonema oglinum
Orthopristis chrysoptera
Pandion haliaetus
Paralichthys albigutta
Paralichthys lethostigma
Pelecanus erythrorhynchos
Pelecanus occidentalis
Penaeus aztecus
Penaeus duorarum
Penaeus setiferus
Peprilus alepidotus
Peprilus burti
Phalacrocorax auritus
Pluvialis squatarola
Podiceps auritus
Podilymbus podiceps
Poecilia latipinnaa
Pogonias cromis
Pomatomus saltatrix
Porphyrula martinica
Procyon lotor
Rachycentron canadum
Rallus elegans
Rallus longirostris
Rangia cuneata
Rhizoprionodon terraenovae
Rynchops niger
Sciaenops ocellatus
Scomberomorus cavalla
Scomberomorus maculatus
Stellifer lanceolatus
Sterna antillarum
Sterna caspia
Sterna fuscata
Sterna maxima
Sterna sandvicensis
Sus scrofa
Trachinotus carolinus
Trachurus lathami
Urophycis floridanus

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Urophycis regius

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

S_F

5.1.2.2. ATTRIBUTE DEFINITION:

State and Federal status

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
F	Federally listed
S	State listed
S/F	State and Federally listed

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

USFWS

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

T_E

5.1.2.2. ATTRIBUTE DEFINITION:

Threatened and endangered status

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
E	Endangered
E/E	Endangered on State and Federal lists
E/T	Endangered on State lists; Threatened on Federal lists
T	Threatened
T/E	Threatened on State lists; Endangered on Federal lists

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

USFWS

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

NHP

5.1.2.2. ATTRIBUTE DEFINITION:

This field is blank because no NHP information was gathered when this atlas was published. The field is included here to maintain consistency with the latest ESI data structure.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
	Not supplied with this atlas

5.1.2.1. ATTRIBUTE LABEL:

DATE_PUB

5.1.2.2. ATTRIBUTE DEFINITION:

This field is blank because no NHP information was gathered when this atlas was published. The field is included here to maintain consistency with the latest ESI data structure.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
	Not supplied with this atlas

5.1.2.1. ATTRIBUTE LABEL:
CONC

5.1.2.2. ATTRIBUTE DEFINITION:
Relative concentration of the species at a specific location. For the biological elements (except HABITATS), values include LOW, MEDIUM, or HIGH. For the HABITATS element, values include CONTINUOUS, MODERATE, SPARSE, or VERY SPARCE. A "–" indicates that concentration values were not collected when the atlas was published.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
JAN

5.1.2.2. ATTRIBUTE DEFINITION:
Present in January

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:

FEB

5.1.2.2. ATTRIBUTE DEFINITION:

Present in February

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

MAR

5.1.2.2. ATTRIBUTE DEFINITION:

Present in March

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

APR

5.1.2.2. ATTRIBUTE DEFINITION:

Present in April

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

MAY

5.1.2.2. ATTRIBUTE DEFINITION:

Present in May

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

JUN

5.1.2.2. ATTRIBUTE DEFINITION:

Present in June

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

JUL

5.1.2.2. ATTRIBUTE DEFINITION:

Present in July

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

AUG

5.1.2.2. ATTRIBUTE DEFINITION:

Present in August

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SEP

5.1.2.2. ATTRIBUTE DEFINITION:

Present in September

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:
OCT

5.1.2.2. ATTRIBUTE DEFINITION:
Present in October

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
NOV

5.1.2.2. ATTRIBUTE DEFINITION:
Present in November

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:

DEC

5.1.2.2. ATTRIBUTE DEFINITION:

Present in December

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED1

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage textual summary where:
if ELEMENT = BIRD then BREED1 = nesting;
if ELEMENT = FISH then BREED1 = spawning;
if ELEMENT = INVERT then BREED1 = spawning;
if ELEMENT = REPTILE then BREED1 = nesting

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
XXX-XXX	3 character abbreviation of start and end month of breed1 activities
-	Not Occurring
N/A	No breed1 activities for this element

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
BREED2

5.1.2.2. ATTRIBUTE DEFINITION:
Species' breeding or life stage textual summary where:
if ELEMENT = BIRD then BREED2 = laying;
if ELEMENT = FISH then BREED2 = outmigration;
if ELEMENT = INVERT then BREED2 = larvae/juveniles;
if ELEMENT = REPTILE then BREED2 = hatching

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
XXX-XXX	3 character abbreviation of start and end month of breed2 activities
-	Not Occurring
N/A	No breed2 activities for this element

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
BREED3

5.1.2.2. ATTRIBUTE DEFINITION:
Species' breeding or life stage textual summary where:
if ELEMENT = BIRD then BREED3 = hatching;
if ELEMENT = FISH then BREED3 = larvae/juveniles;
if ELEMENT = INVERT then BREED3 = mating;
if ELEMENT = REPTILE then BREED3 = internesting

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
XXX-XXX	3 character abbreviation of start and end month of breed3 activities
-	Not Occurring
N/A	No breed3 activities for this element

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED4

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage textual summary where:
if ELEMENT = BIRD then BREED4 = fledging

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
XXX-XXX	3 character abbreviation of start and end month of breed4 activities
-	Not Occurring
N/A	No breed4 activities for this element

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links directly back to the biological data layers or to the BIO_LUT lookup table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
G_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:
Geographic source identifier that links to the flat file's supplementary data table SOURCES

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
S_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:
Seasonality source identifier that links to the flat file's supplementary data table SOURCES

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
BREED

5.1.2.2. ATTRIBUTE DEFINITION:
Breed identifier that links to the flat file's supplementary data table BREED_DT that allows searches of breeding activities by month.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1. DETAILED DESCRIPTION: BIORES

The data table BIORES contains the attributes necessary for linking to several spatial data layers and other data tables.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	RARNUM	integer
	SPECIES_ID	integer
	CONC	character
	SEASON_ID	integer
	G_SOURCE	integer
	S_SOURCE	integer
	ELEMENT	character
	EL_SPE	character
	EL_SPE_SEA	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links to the BIO_LUT table and directly back to the biology coverages.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:
SPECIES_ID

5.1.2.2. ATTRIBUTE DEFINITION:
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained by NOAA

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
CONC

5.1.2.2. ATTRIBUTE DEFINITION:
Relative concentration of the species at a specific location. For the biological elements (except HABITATS), values include LOW, MEDIUM, or HIGH. For the HABITATS element, values include CONTINUOUS, MODERATE, SPARSE, or VERY SPARCE. A "–" indicates that concentration values were not collected when the atlas was published.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
SEASON_ID

5.1.2.2. ATTRIBUTE DEFINITION:
A link from the BIORES table to the SEASONAL table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
G_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:
Geographic source identifier that links to the SOURCES data table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
S_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:
Seasonality source identifier that links to the SOURCES data table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
ELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:
Major categories of biological data

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
BIRD	Birds
FISH	Fish
HABITAT	Habitats and Rare Plants
INVERT	Invertebrates
REPTILE	Reptiles and Amphibians
T_MAMMAL	Terrestrial Mammals

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
EL_SPE

5.1.2.2. ATTRIBUTE DEFINITION:
Concatenation of the first character of the ELEMENT and the SPECIES_ID that provides a link to the SPECIES table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
EL_SPE_SEA

5.1.2.2. ATTRIBUTE DEFINITION:
Concatenation of the first character of the ELEMENT, the SPECIES_ID, and the SEASON_ID that provides a link to the SEASONAL table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

This page intentionally left blank

5.1. DETAILED DESCRIPTION: BIRDS

The data layer BIRDS contains the polygons with bird species. The following BIRDS species are found in the Mississippi ESI data set:

SPECIES ID	NAME
1	Common loon
5	Horned grebe
8	Double-crested cormorant
15	Snow goose
16	Mallard
17	Northern pintail
18	Green-winged teal
20	Northern shoveler
21	Canvasback
22	Greater scaup
23	Lesser scaup
24	Common goldeneye
26	Bufflehead
27	Oldsquaw
33	Red-breasted merganser
34	American coot
38	Herring gull
40	Ring-billed gull
42	Bonaparte's gull
54	Great blue heron
67	Sanderling
69	Semipalmated plover
70	Killdeer
71	Black-bellied plover
76	Bald eagle
77	Osprey
86	Least tern
87	Little blue heron
88	Great egret
89	Snowy egret
90	Black-crowned night heron
93	Cattle egret
94	Tricolored heron
97	Green-backed heron
98	Laughing gull
107	Peregrine falcon
115	White ibis
118	Brown pelican
120	Yellow-crowned night heron
124	Redhead

SPECIES ID	NAME
125	Clapper rail
127	Sooty tern
133	Black skimmer
135	Sandwich tern
136	Caspian tern
137	Royal tern
139	Snowy plover
150	Black rail
152	American oystercatcher
153	Piping plover
154	Wilson's plover
155	Willet
162	Gadwall
163	Reddish egret
167	Northern gannet
169	American wigeon
173	American white pelican
178	Least bittern
179	Pied-billed grebe
180	Ring-necked duck
181	Northern harrier
184	King rail
185	American bittern
189	Yellow rail
190	Blue-winged teal
192	Common moorhen
193	Black tern
198	Hooded merganser
211	Mottled duck
212	Purple gallinule
298	Mississippi sandhill crane

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	ID	integer
	RARNUM	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the BIO_LUT table. ID is a concatenation of atlas number (32), element number (1), and record number. ID values of 9999 are holes in polygons and do not contain information.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links directly to the BIORES table or the flat format BIOFILE table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

This page intentionally left blank

5.1. DETAILED DESCRIPTION: BREED

The data table BREED identifies the life stages and abundances, by month, for each species. (There are no breeding activities for HABITAT or T_MAMMAL elements.)

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	EL_SPE_SEA	character
	MONTH	integer
	BREED1	character
	BREED2	character
	BREED3	character
	BREED4	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

EL_SPE_SEA

5.1.2.2. ATTRIBUTE DEFINITION:

Concatenation of the first character of the ELEMENT, the SPECIES_ID, and the SEASON_ID. Links to BIORES and SEASONAL data tables. If a species has any different monthly presence or breeding activity, a new seasonality record is used to accommodate the variable nature of the species across the study area

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

MONTH

5.1.2.2. ATTRIBUTE DEFINITION:

Two-digit integer corresponding to the calendar month. Can have up to 12 records to account for each month of the year

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1	January
2	February
3	March
4	April
5	May
6	June
7	July
8	August
9	September
10	October
11	November
12	December

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED1

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
if EL_SPE_SEA contains "B" then BREED1 = nesting;
if EL_SPE_SEA contains "F" then BREED1 = spawning;
if EL_SPE_SEA contains "I" then BREED1 = spawning;
if EL_SPE_SEA contains "R" then BREED1 = nesting

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N	Not occurring
Y	Occurring

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
BREED2

5.1.2.2. ATTRIBUTE DEFINITION:
Species' breeding or life stage information where:
if EL_SPE_SEA contains "B" then BREED2 = laying;
if EL_SPE_SEA contains "F" then BREED2 = outmigration;
if EL_SPE_SEA contains "I" then BREED2 = larvae/juveniles;
if EL_SPE_SEA contains "R" then BREED2 = hatching

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N	Not occurring
Y	Occurring

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
BREED3

5.1.2.2. ATTRIBUTE DEFINITION:
Species' breeding or life stage information where:
if EL_SPE_SEA contains "B" then BREED3 = hatching;
if EL_SPE_SEA contains "F" then BREED3 = larvae/juveniles;
if EL_SPE_SEA contains "I" then BREED3 = mating;
if EL_SPE_SEA contains "R" then BREED3 = internesting

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N	Not occurring
Y	Occurring

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED4

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
if EL_SPE_SEA contains "B" then BREED4 = fledging;

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N	Not occurring
Y	Occurring

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: BREED_DT

The data table BREED _DT is a supplement to the flat format BIOFILE that allows searches to be conducted for life stage activities by month. This is a condensed version of the BREED table where multiple species of the same element may link to the same BREED_DT records. (There are no breeding activities for the HABITAT or T_MAMMAL elements.)

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	BREED	integer
	MONTH	integer
	BREED1	character
	BREED2	character
	BREED3	character
	BREED4	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

BREED

5.1.2.2. ATTRIBUTE DEFINITION:

An integer value that links from the BIOFILE to the BREED_DT table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

MONTH

5.1.2.2. ATTRIBUTE DEFINITION:

Two-digit integer corresponding to the calendar month. Each month is listed whether any special life activity is occurring or not.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1	January
2	February
3	March
4	April
5	May
6	June
7	July
8	August
9	September
10	October
11	November
12	December

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED1

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
if EL_SPE_SEA contains "B" then BREED1 = nesting;
if EL_SPE_SEA contains "F" then BREED1 = spawning;
if EL_SPE_SEA contains "I" then BREED1 = spawning;
if EL_SPE_SEA contains "R" then BREED1 = nesting

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N	Not occurring
Y	Occurring
-	No Breed1 activity for this element

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED2

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
if EL_SPE_SEA contains "B" then BREED2 = laying;
if EL_SPE_SEA contains "F" then BREED2 = outmigration;
if EL_SPE_SEA contains "I" then BREED2 = larvae/juveniles;
if EL_SPE_SEA contains "R" then BREED2 = hatching

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N	Not occurring
Y	Occurring
-	No Breed2 activity for this element

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED3

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
if EL_SPE_SEA contains "B" then BREED3 = hatching;
if EL_SPE_SEA contains "F" then BREED3 = larvae/juveniles;
if EL_SPE_SEA contains "I" then BREED3 = mating;
if EL_SPE_SEA contains "R" then BREED3 = internesting

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N	Not occurring
Y	Occurring
-	No Breed3 activity for this element

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

BREED4

5.1.2.2. ATTRIBUTE DEFINITION:

Species' breeding or life stage information where:
if EL_SPE_SEA contains "B" then BREED4 = fledging

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
N	Not occurring
Y	Occurring
-	No Breed4 activity for this element

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

This page intentionally left blank

5.1. DETAILED DESCRIPTION: ESIL

The data layer ESIL contains arc (Complete Chains) features for the ESI shoreline classification and is based on *Guidelines for Developing Digital Environmental Sensitivity Index Atlases and Databases* (Michel, J. and J. Dahlin, 1993, Hazardous Materials Response and Assessment Division, NOAA). The ESI classification was performed 20-26 October 1992.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Complete Chain	ESI	character
	LINE	character
	SOURCE_ID	integer
	ENVIR	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ESI

5.1.2.2. ATTRIBUTE DEFINITION:

The item ESI contains values according to the ESI ranking of the shorelines and polygons. The ESI rankings progress from low to high susceptibility to oil spills. The Mississippi shoreline types are listed below. In many cases, the shorelines are also ranked with multiple codes such as 10/7. The first number is the most landward shoreline type, salt marsh, with exposed tidal flats being the shoreline type closest to the water.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1	Exposed Walls and Other Solid Structures Made of Concrete, Wood, or Metal
1/10A	Exposed Walls and Other Solid Structures made of Concrete, Wood, or Metal/Salt and Brackish Water Marshes

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1/3A	Exposed Walls and Other Solid Structures made of Concrete, Wood, or Metal/Fine-grained Sand Beaches
1/3A/1	Exposed Walls and Other Solid Structures made of Concrete, Wood, or Metal/Fine-grained Sand Beaches/Exposed Walls and Other Solid Structures made of Concrete, Wood, or Metal
3A	Fine-grained Sand Beaches
3A/7	Fine-grained Sand Beaches/Exposed Tidal Flats
3A/10A	Fine-grained Sand Beaches/Salt and Brackish Water Marshes
3B	Scarps and Steep Slopes in Sand
3B/1	Scarps and Steep Slopes in Sand/Exposed Walls and Other Solid Structures made of Concrete, Wood, or Metal
3B/3A	Scarps and Steep Slopes in Sand/Fine-grained Sand Beaches
5	Mixed Sand and Gravel (Shell) Beaches
6A	Gravel (Shell) Beaches
6B	Exposed Riprap Structures
7	Exposed Tidal Flats
8A	Sheltered Solid Man-made Structures
8A/10A	Sheltered Solid Man-made Structures/Salt and Brackish Water Marshes
8B	Sheltered Riprap Structures
8C	Sheltered Scarps
8C/3A	Sheltered Scarps/Fine-grained Sand Beaches
8C/5	Sheltered Scarps/Mixed Sand and Gravel (Shell) Beaches
8C/8A	Sheltered Scarps/Sheltered Solid Man-made Structures
8C/8B	Sheltered Scarps/Sheltered Riprap Structures
9B	Riverine Banks with Grasses or Trees
10A	Salt and Brackish Water Marshes
10A/3A	Salt and Brackish Water Marshes/Fine-grained Sand Beaches
10A/7	Salt and Brackish Water Marshes/Exposed Tidal Flats
10A/8A	Salt and Brackish Water Marshes/Sheltered Solid Man-made Structures
10A/8C	Salt and Brackish Water Marshes/Sheltered Scarps
10A/10C	Salt and Brackish Water Marshes/Freshwater Swamps (Woody Vegetation)
10B	Freshwater Marshes (Herbaceous Vegetation)
10C	Freshwater Swamps (Woody Vegetation)
10C/10A	Freshwater Swamps (Woody Vegetation)/Salt and Brackish Water Marshes

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordinal

5.1.2.1. ATTRIBUTE LABEL:

LINE

5.1.2.2. ATTRIBUTE DEFINITION:

Type of geographic feature

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
H	Hydrography or stream features
S	Shoreline
F	Flat
P	Pier

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SOURCE_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Data source for the ESI

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
0	Original Digital Data
1	Overflight
3	Table Digitization from USGS Quadrangle
4	Digital Update
6	NWI

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
ENVIR

5.1.2.2. ATTRIBUTE DEFINITION:
Regional environment

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
E	Estuarine

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1. DETAILED DESCRIPTION: ESIP

The data layer ESIP contains polygonal (GT-Polygons) features for the ESI shoreline classification and is based on *Guidelines for Developing Digital Environmental Sensitivity Index Atlases and Databases* (Michel, J. and J. Dahlin, 1993, Hazardous Materials Response and Assessment Division, NOAA). The ESI classification was performed 20-26 October 1992.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	ESI	character
	WATER_CODE	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ESI

5.1.2.2. ATTRIBUTE DEFINITION:

The item ESI contains values according to the ESI ranking of the shorelines and polygons. The ESI rankings progress from low to high susceptibility to oil spills. The Mississippi shoreline types are listed below. In many cases, the shorelines are also ranked with multiple codes such as 10/7. The first number is the most landward shoreline type, salt marsh, with exposed tidal flats being the shoreline type closest to the water.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
7	Exposed Tidal Flats
10A	Salt and Brackish Water Marshes
U	Unranked holes

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordinal

5.1.2.1. ATTRIBUTE LABEL:

WATER_CODE

5.1.2.2. ATTRIBUTE DEFINITION:

Specifies a polygon as either water or land

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
W	Water
L	Land
U	Unranked holes

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: FISH

The data layer FISH contains the polygons with fish species. The following FISH species are found in the Mississippi data set:

SPECIES ID	NAME
48	Whitespotted greenling
65	Bluefish
102	Atlantic sturgeon
103	Threadfin shad
104	Striped bass
107	Spotted seatrout
109	Red drum
111	Southern flounder
112	Gulf flounder
113	Bay anchovy
114	Florida pompano
116	Striped mullet
117	Pinfish
119	Silver perch
120	Pigfish
121	Spot
122	Black drum
123	Atlantic croaker
124	Southern kingfish (whiting)
126	King mackerel
127	Spanish mackerel
128	Blue runner
129	Atlantic thread herring
130	Scaled sardine
134	Cobia
137	Sheepshead
140	Ladyfish
142	Crevalle jack
143	Tarpon
153	Northern kingfish
163	Gizzard shad
173	White mullet
179	Largemouth bass
182	Bluegill
200	Blue catfish
201	Channel catfish
204	Redear sunfish
206	Spotted sunfish
213	Gulf menhaden
214	Gulf kingfish

SPECIES ID	NAME
215	Sand seatrout
217	Gafftopsail catfish
243	Longear sunfish
268	Silver seatrout
269	Gulf killifish
270	Longnose killifish
271	Inland silverside
273	Star drum
274	Sheepshead minnow
278	Little tunny
281	Seatrout
287	Hardhead catfish
289	Skipjack herring
290	Striped anchovy
291	Shiners
293	Southern hake
294	Spotted hake
295	Halfbeak
297	Marsh killifish
299	Rainwater killifish
300	Sailfin molly
301	Rough silverside
302	Gag grouper
304	Rough scad
305	Red snapper
306	Gray snapper
307	Lane snapper
308	Rock sea bass
309	Spotfin mojarra
310	Atlantic spadefish
312	Harvestfish
313	Gulf butterfish
315	Blacktip shark
316	Spinner shark
317	Bull shark
318	Atlantic sharpnose shark
319	Gulf sturgeon

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	ID	integer
	RARNUM	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the BIO_LUT table. ID is a concatenation of atlas number (32), element number (2), and record number. ID values of 9999 are holes in polygons and do not contain information.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links directly to the BIORES table or the flat format BIOFILE table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

This page intentionally left blank

5.1. DETAILED DESCRIPTION: HABITATS

The data layer HABITATS contains the polygons with plant species. The following HABITATS species are found in the Mississippi data set:

SPECIES ID	NAME
85	Seagrass

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	ID	integer
	RARNUM	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the BIO_LUT table. ID is a concatenation of atlas number (32), element number (3), and record number. ID values of 9999 are holes in polygons and do not contain information.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links directly to the BIORES table or the flat format BIOFILE table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: HYDRO

The data layer HYDRO contains polygonal water and land features, as well as linear features for rivers / streams that are tidally influenced.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	WATER_CODE	character
Complete Chains	LINE	character
	SOURCE_ID	integer

The LINE, SOURCE_ID, and WATER_CODE attributes are the same as in the ESIL coverage. This coverage contains all annotation used in producing the atlas. The annotation features are categorized into three subclasses in order to simplify the mapping and quality control procedures: geog or geographic features, soc or socioeconomic features, and hydro or water features.

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

WATER_CODE

5.1.2.2. ATTRIBUTE DEFINITION:

Specifies a polygon as either water or land

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
W	Water
L	Land

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

LINE

5.1.2.2. ATTRIBUTE DEFINITION:

Type of geographic feature

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
B	Breakwater or pier
H	Hydrography or stream features
I	Index
S	Shoreline

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SOURCE_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Data source for the HYDRO

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
0	Original Digital Data
1	Overflight
3	Table Digitization from USGS Quadrangle
4	Digital Update
6	NWI

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: INDEX

The coverage INDEX contains the map boundaries for each quad/map in the atlas.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	TILE-NAME	character
	TOPO-NAME	character
	SCALE	integer
	MAPANGLE	fraction
	PAGESIZE	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

TILE-NAME

5.1.2.2. ATTRIBUTE DEFINITION:

The TILE-NAME contains the map number according to the specified layout of the atlas. During the map production process, the value of TILE-NAME is plotted on the map product to order the maps in a coherent manner. The values for each polygon are unique and range from 1 through 29.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordinal

5.1.2.1. ATTRIBUTE LABEL:

TOPO-NAME

5.1.2.2. ATTRIBUTE DEFINITION:

USGS 1:24,000 topographic map name. Some polygons straddle two or more maps and all map names are included in this attribute. The date (latest/revised) of the USGS maps are also included in this field.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

BAY ST. LOUIS, MISS. (1976)
BILOXI, MISS. (1976)
CAT ISLAND, MISS.-LA. (1994)

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

DEER ISLAND, MISS. (1970)
DOG KEYS PASS, MISS. (1970)
ENGLISH LOOKOUT, LA.-MISS. (1976)
GAUTIER NORTH, MISS. (1982)
GAUTIER SOUTH, MISS. (1982)
GRAND BAY SW, MISS.-ALA. (1977)
GRAND ISLAND PASS, MISS.-LA. (1976)
GULFPORT NORTH, MISS. (1985)
GULFPORT NORTHWEST, MISS. (1985)
GULFPORT SOUTH, MISS. (1994)
HAASWOOD, LA.-MISS. (1976)
HORN ISLAND EAST, MISS. (1982)
HORN ISLAND WEST, MISS. (1982)
ISLE AU PITRE, LA.-MISS. (1994)
KREOLE, MISS.-ALA. (1986)
LOGTOWN, MISS. (1976)
OCEAN SPRINGS, MISS. (1987)
PASCAGOULA NORTH, MISS. (1982)
PASCAGOULA SOUTH, MISS. (1982)
PASS CHRISTIAN, MISS. (1994)
PETIT BOIS ISLAND, MISS.-ALA. (1982)
SHIP ISLAND, MISS. (1970)
VIDALIA, MISS. (1976)
WAVELAND, MISS. (1976)

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SCALE

5.1.2.2. ATTRIBUTE DEFINITION:

SCALE contains the value of the denominator of the scale at which the INDEX polygon is plotted in the final map product.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

50,000

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

MAPANGLE

5.1.2.2. ATTRIBUTE DEFINITION:

MAPANGLE contains a value to rotate the final map product so that it is situated straight up and down.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

0.00
1.00

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

PAGESIZE

5.1.2.2. ATTRIBUTE DEFINITION:

PAGESIZE contains the value of the width and height of the map in the final map product.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

11,17

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

This page intentionally left blank

5.1. DETAILED DESCRIPTION: INVERT (formerly SHELLFSH)

The data layer INVERT contains the polygons with invertebrate species. The following INVERT species are found in the Mississippi data set:

SPECIES ID	NAME
4	Pink shrimp
41	Atlantic bay scallop
43	American oyster (eastern)
49	Blue crab
50	White shrimp
51	Brown shrimp
74	Stone crab
82	Brackishwater clam
94	Southern quahog (hard clam)

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	ID	integer
	RARNUM	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the BIO_LUT table. ID is a concatenation of atlas number (32), element number (7), and record number. ID values of 9999 are holes in polygons and do not contain information.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links directly to the BIORES table or the flat format BIOFILE table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: MGT

The data layer MGT contains the polygons for the human-use data.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	TYPE	character
	ID	integer
	HUNUM	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

TYPE

5.1.2.2. ATTRIBUTE DEFINITION:

Identifies polygons with a socioeconomic, or human-use, feature. This attribute allows direct access to the type of feature instead of linking to the more detailed SOC_DAT table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
B	Recreational Beach
P	Regional or State Park
NP	National Park
WR	Wildlife Refuge

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the SOC_LUT table. ID is a concatenation of atlas number (32), element number (11), and record number

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
HUNUM

5.1.2.2. ATTRIBUTE DEFINITION:
An identifier that links directly to the SOC_DAT table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1. DETAILED DESCRIPTION: NESTS

The data layer NESTS contains entity points representing nesting sites. The following species are found in the NESTS data layer of the Mississippi data set:

SPECIES ID	NAME
54	Great blue heron
86	Least tern
133	Black skimmer
135	Sandwich tern
137	Royal tern

5.1.1. ENTITY TYPES:

LABEL:	DEFINITION:	
Entity Points	ID	integer
	RARNUM	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the BIO_LUT table. ID is a concatenation of atlas number (32), element number (5), and record number.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links directly to the BIORES table or the flat format BIOFILE table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: REPTILES

The data layer REPTILES contains the polygons with reptile species. The following REPTILES species are found in the Mississippi ESI data set:

SPECIES ID	NAME
3	American alligator
6	Atlantic loggerhead sea turtle
12	Gulf salt marsh snake
18	Mississippi diamondback terrapin

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	ID	integer
	RARNUM	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the BIO_LUT table. ID is a concatenation of atlas number (32), element number (6), and record number. ID values of 9999 are holes in polygons and do not contain information.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links directly to the BIORES table or the flat format BIOFILE table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: SEASONAL

The data table SEASONAL specifies the month when each species is present.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	ELEMENT	character
	SPECIES_ID	integer
	SEASON_ID	integer
	JAN	character
	FEB	character
	MAR	character
	APR	character
	MAY	character
	JUN	character
	JUL	character
	AUG	character
	SEP	character
	OCT	character
	NOV	character
	DEC	character
	EL_SPE_SEA	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Major categories of biological data

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
BIRD	Birds
FISH	Fish
HABITAT	Habitats and Rare Plants
INVERT	Invertebrates
REPTILE	Reptiles and Amphibians
T_MAMMAL	Terrestrial Mammals

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
SPECIES_ID

5.1.2.2. ATTRIBUTE DEFINITION:
Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained by NOAA

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
SEASON_ID

5.1.2.2. ATTRIBUTE DEFINITION:
Numeric identifier for the unique monthly presence and life history characteristics of each species at a given location. There can be one seasonality record per species, or the same species can have different monthly presence or breeding activities at different sites. When this occurs, a new record with a different SEASON_ID is referenced

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
JAN

5.1.2.2. ATTRIBUTE DEFINITION:
Present in January

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
FEB

5.1.2.2. ATTRIBUTE DEFINITION:
Present in February

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
MAR

5.1.2.2. ATTRIBUTE DEFINITION:
Present in March

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
APR

5.1.2.2. ATTRIBUTE DEFINITION:
Present in April

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
MAY

5.1.2.2. ATTRIBUTE DEFINITION:
Present in May

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
JUN

5.1.2.2. ATTRIBUTE DEFINITION:
Present in June

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
JUL

5.1.2.2. ATTRIBUTE DEFINITION:
Present in July

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
AUG

5.1.2.2. ATTRIBUTE DEFINITION:
Present in August

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
SEP

5.1.2.2. ATTRIBUTE DEFINITION:
Present in September

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
OCT

5.1.2.2. ATTRIBUTE DEFINITION:
Present in October

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
NOV

5.1.2.2. ATTRIBUTE DEFINITION:
Present in November

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
DEC

5.1.2.2. ATTRIBUTE DEFINITION:
Present in December

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
X	Present
	(blank) Not Present

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
EL_SPE_SEA

5.1.2.2. ATTRIBUTE DEFINITION:
Concatenation of the first character of the ELEMENT, the SPECIES_ID, and the SEASON_ID that provides a link from the BIORES table to the BREED table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

This page intentionally left blank

5.1. DETAILED DESCRIPTION: SOC_DAT

The data table SOC_DAT contains the human-use attributes and links to the data layers MGT and SOCECON either directly, using HUNUM, or through the unique ID, using SOC_LUT.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	HUNUM	integer
	TYPE	character
	NAME	character
	CONTACT	character
	PHONE	character
	G_SOURCE	integer
	A_SOURCE	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:
HUNUM

5.1.2.2. ATTRIBUTE DEFINITION:
A unique identifier that links to the SOC_LUT lookup table or directly back to the MGT and SOCECON coverages

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique link

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
TYPE

5.1.2.2. ATTRIBUTE DEFINITION:

Identifies the feature type

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
AIRPORT	Airport
ARCHAEOLOGICAL SITE	Archaeological Site
BOAT RAMP	Boat Ramp
FERRY	Ferry
MARINA	Marina
NATIONAL PARK	National Park
RECREATIONAL BEACH	Recreational Beach
RECREATIONAL FISHING	Recreational Fishing
REGIONAL OR STATE PARK	Park
WILDLIFE REFUGE	Wildlife Refuge

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

NAME

5.1.2.2. ATTRIBUTE DEFINITION:

The feature name

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

AMERICAN LEGION BOAT LAUNCH
ANDERSON POINT BOAT RAMP
ARCHAEOLOGICAL SITE
BAY MARINA
BAY MARINA BOAT RAMP
BAY WAVELAND YACHT CLUB
BAY WAVELAND YACHT CLUB BOAT RAMP
BAYOU CASOTTE BOAT RAMP
BAYOU LA CROIX MARINA
BAYOU LA CROIX MARINA BOAT RAMP

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

BAYVIEW MARINA
BAYVIEW MARINA BOAT RAMP
BEACH BAYOU LANDING
BERT JONES PARK BOAT LAUNCH
BERT JONES YACHT HARBOR
BILOXI SMALL CRAFT HARBOR
BILOXI SMALL CRAFT HARBOR BOAT RAMP
BLUE HERON BOAT RAMP
BLUE HERON MARINA
BOAT RAMP
BUCANEER STATE PARK
CEDAR LAKE ROAD BOAT RAMP
CEDAR POINT BOAT RAMP
CHACTAW BOAT RAMP
CHACTAW MARINA
CHEVRON REFINERY BOAT RAMP
CLAM STREET RAMP
DIAMONDHEAD AIRPORT
DIAMONDHEAD MARINA
DIAMONDHEAD MARINA BOAT RAMP
DIBERVILLE BOAT LAUNCH
DISCOVERY BAY BOAT RAMP
DISCOVERY BAY MARINA
DU PONT RECREATION AREA BOAT RAMP
EAST PASS CHRISTIAN HARBOR
EAST PASS CHRISTIAN HARBOR BOAT RAMP
FERRY
FIVE STAR RESORT BOAT RAMP
FORREST AVE BOAT RAMP
FORT BAYOU BRIDGE LAUNCH
FUNDAROSA AIRPORT
GAUTIER MARINA
GAUTIER MARINA BOAT RAMP
GRAVELINE BAY BOAT LAUNCH
GULF ISLANDS NATIONAL SEASHORE
GULF ISLANDS NATIONAL SEASHORE BOAT RAMP
GULFPORT LAKE
GULFPORT-BILOXI REGIONAL AIRPORT
HENDERSON POINT BOAT RAMP
HIGH USE BEACH
HILLER PARK BOAT RAMP
I-10 BOAT LAUNCH
INDIAN POINT BOAT RAMP
INDIAN POINT MARINA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

JACKSON COUNTY AIRPORT
JAYCEE BOAT LAUNCH
JOES MARINA AND BAIT CAMP
JOES MARINA AND BAIT CAMP BOAT RAMP
JOURDAN RIVER MARINA
JOURDAN RIVER MARINA BOAT RAMP
KEESLER AIR FORCE BASE
KEESLER AIR FORCE BASE BOAT RAMP
KEESLER AIR FORCE BASE MARINA
KREMER MARINE
KREMER MARINE BOAT RAMP
KUHN STREET RAMP
L & A CONTRACTING BOAT RAMP
LANDING STRIP
LIL JOES BAIT CAMP BOAT RAMP
LONG BEACH HARBOR
LONG BEACH HARBOR BOAT RAMP
MARINA
MARY WALKER BOAT RAMP
MARY WALKER MARINA
MISSISSIPPI SANDHILL CRANE N.W.R.
MOSS POINT BOAT RAMP
NAVY HOME PORT - SINGING RIVER ISLAND
OCEAN SPRINGS MARINA MART
OCEAN SPRINGS MARINA MART BOAT RAMP
OLD SPANISH FORT
PARKERS CREEK LAUNCH
POPPS FERRY CAUSEWAY LAUNCH
POPPS FERRY FISHING CAMP MARINA
POPS FERRY FISHING CAMP BOAT RAMP
RECREATIONAL BEACH
RECREATIONAL FISHING
RIVERSIDE BOAT RAMP
ROYS FISH CAMP
ROYS IV
SCRANTON BOAT RAMP
SHEPARD STATE PARK
SIOUX BAYOU FISHING CAMP
STENNIS INTERNATIONAL AIRPORT
TIMOER RIDGE BOAT RAMP
TUCEIS NOW ROYS III
UNIDENTIFIED ARCHAEOLOGICAL SITE
WEST PASS CHRISTIAN HARBOR
WEST PASS CHRISTIAN HARBOR BOAT RAMP
WEST RIVER BOAT RAMP

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

WEST RIVER MARINA
WOLF RIVER LAUNCH

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

CONTACT

5.1.2.2. ATTRIBUTE DEFINITION:

Contact person

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

PHONE

5.1.2.2. ATTRIBUTE DEFINITION:

Telephone number

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

G_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:

Geographic source identifier that links to the SOURCES data table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique link

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
A_SOURCE

5.1.2.2. ATTRIBUTE DEFINITION:
Attribute source identifier that links to the SOURCES data table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique link

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1. DETAILED DESCRIPTION: SOC_LUT

Lookup table to link SOC_DAT to SOCECON and MGT data layers.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	HUNUM	integer
	ID	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:
HUNUM

5.1.2.2. ATTRIBUTE DEFINITION:
A unique identifier that links SOCECON and MGT to the SOC_DAT data table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
ID

5.1.2.2. ATTRIBUTE DEFINITION:
A unique identifier that links SOC_LUT to the SOCECON and MGT data layers

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

This page intentionally left blank

5.1. DETAILED DESCRIPTION: SOCECON

The coverage SOCECON contains the entity points for the human-use data.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Complete Chains	TYPE	character
Entity Points	TYPE	character
	ID	integer
	HUNUM	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

TYPE

5.1.2.2. ATTRIBUTE DEFINITION:

Identifies a line or point with a socioeconomic, or human-use, feature. This attribute allows direct access to the type of feature instead of linking to the more detailed SOC_DAT table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
A	Airport (Point)
AS	Archaeological Sites (Point)
BR	Boat Ramp (Point)
F	Ferry (Point)
M	Marina (Point)
RF	Recreational Fishing (Point)
SB	State Border (Chain)

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:
ID

5.1.2.2. ATTRIBUTE DEFINITION:
A unique identifier that links to the SOC_LUT table. ID is a concatenation of atlas number (32), element number (10), and record number.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
HUNUM

5.1.2.2. ATTRIBUTE DEFINITION:
An identifier that links directly to the SOC_DAT table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1. DETAILED DESCRIPTION: SOURCES

The data table SOURCES contains the primary sources used to create the ESI atlas.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	SOURCE_ID	integer
	ORIGINATOR	character
	DATE_PUB	integer
	TITLE	character
	DATA_FORMAT	character
	PUBLICATION	character
	SCALE	character
	TIME_PERIOD	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

SOURCE_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Source identifier that links to G_SOURCE, S_SOURCE, and A_SOURCE found in the BIORES, BIOFILE and SOC_DAT tables

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:
ORIGINATOR

5.1.2.2. ATTRIBUTE DEFINITION:
Author of the data set

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
DATE_PUB

5.1.2.2. ATTRIBUTE DEFINITION:
Date of data collection or publication

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	The first two integers are the month and the last four are the year. If month is unknown, only the four-digit year is entered

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
TITLE

5.1.2.2. ATTRIBUTE DEFINITION:
Title of the source data set or document

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Originator who provided data, or RPI for personal interviews with resource experts

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:

DATA_FORMAT

5.1.2.2. ATTRIBUTE DEFINITION:

The format of the source data set

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Digital ASCII
Expert Knowledge and Maps
Maps

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

PUBLICATION

5.1.2.2. ATTRIBUTE DEFINITION:

Additional citation information

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SCALE

5.1.2.2. ATTRIBUTE DEFINITION:

Source scale denominator

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

ordinal

5.1.2.1. ATTRIBUTE LABEL:
TIME_PERIOD

5.1.2.2. ATTRIBUTE DEFINITION:
Date(s) of data collection

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1. DETAILED DESCRIPTION: SPECIES

The data table SPECIES identifies all species used in the ESI atlas.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	SPECIES_ID	integer
	NAME	character
	GEN_SPEC	character
	ELEMENT	character
	SUBELEMENT	character
	NHP	character
	DATE_PUB	integer
	EL_SPE	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

SPECIES_ID

5.1.2.2. ATTRIBUTE DEFINITION:

Numeric identifier for each species that is unique within each element and refers to a nationwide ESI species list maintained by NOAA

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

NAME

5.1.2.2. ATTRIBUTE DEFINITION:

Species common name

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

American alligator
American bittern
American coot
American oyster (eastern)
American oystercatcher
American white pelican
American wigeon
Atlantic bay scallop
Atlantic croaker
Atlantic sharpnose shark
Atlantic spadefish
Atlantic sturgeon
Atlantic thread herring
Bald eagle
Bay anchovy
Beaver
Black drum
Black rail
Black skimmer
Black tern
Black-bellied plover
Black-crowned night heron
Blacktip shark
Blue catfish
Blue crab
Blue runner
Bluefish
Bluegill
Blue-winged teal
Bonapartes gull
Brackishwater clam
Brown pelican
Brown shrimp

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Bufflehead
Bull shark
Canvasback
Caspian tern
Cattle egret
Channel catfish
Clapper rail
Cobia
Common goldeneye
Common loon
Common moorhen
Crevalle jack
Double-crested cormorant
Florida pompano
Gadwall
Gafftopsail catfish
Gag grouper
Gizzard shad
Gray snapper
Great blue heron
Great egret
Greater scaup
Green-backed heron
Green-winged teal
Gulf butterfish
Gulf flounder
Gulf killifish
Gulf kingfish
Gulf menhaden
Gulf salt marsh snake
Gulf sturgeon
Halfbeak
Hardhead catfish
Harvestfish
Herring gull
Hooded merganser
Horned grebe
Inland silverside
Killdeer
King mackerel
King rail
Ladyfish

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Lane snapper
Largemouth bass
Laughing gull
Least bittern
Least tern
Lesser scaup
Little blue heron
Little tunny
Loggerhead sea turtle
Longear sunfish
Longnose killifish
Mallard
Marsh killifish
Mink
Mississippi diamondback terrapin
Mississippi sandhill crane
Mottled duck
Muskrat
Northern gannet
Northern harrier
Northern kingfish
Northern pintail
Northern raccoon
Northern shoveler
Nutria
Oldsquaw
Osprey
Peregrine falcon
Pied-billed grebe
Pigfish
Pinfish
Pink shrimp
Piping plover
Purple gallinule
Rainwater killifish
Red drum
Red snapper
Red-breasted merganser
Reddish egret
Redear sunfish
Redhead
Ring-billed gull

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Ring-necked duck
River otter
Rock sea bass
Rough scad
Rough silverside
Royal tern
Sailfin molly
Sand seatrout
Sanderling
Sandwich tern
Scaled sardine
Seagrass
Seatrout
Semipalmated plover
Sheepshead
Sheepshead minnow
Shiners
Silver perch
Silver seatrout
Skipjack herring
Snow goose
Snowy egret
Snowy plover
Sooty tern
Southern flounder
Southern hake
Southern kingfish (whiting)
Southern quahog (hard clam)
Spanish mackerel
Spinner shark
Spot
Spotfin mojarra
Spotted hake
Spotted seatrout
Spotted sunfish
Star drum
Stone crab
Striped anchovy
Striped bass
Striped mullet
Tarpon
Threadfin shad

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Tricolored heron
White ibis
White mullet
White shrimp
Whitespotted greenling
Wild hog
Willet
Wilsons plover
Yellow rail
Yellow-crowned night heron

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

GEN_SPEC

5.1.2.2. ATTRIBUTE DEFINITION:

Species scientific name

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Acipenser oxyrhynchus
Acipenser oxyrhynchus desotoi
Alligator mississippiensis
Alosa chrysochloris
Anas acuta
Anas americana
Anas clypeata
Anas crecca
Anas discors
Anas fulrigula
Anas platyrhynchos
Anas strepera
Anchoa hepsetus
Anchoa mitchilli
Archosargus probatocephalus
Ardea herodias

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Argopecten irradians
Arius felis
Aythya affinis
Aythya americana
Aythya collaris
Aythya marila
Aythya valisineria
Bagre marinus
Bairdiella chrysoura
Botaurus lentiginosus
Brevoortia patronus
Bubulcus ibis
Bucephala albeola
Bucephala clangula
Butorides striatus
Calidris alba
Callinectes sapidus
Caranx crysos
Caranx hippos
Carcharhinus brevipinna
Carcharhinus leucas
Carcharhinus limbatus
Caretta caretta
Casmerodius albus
Castor canadensis
Catoptrophorus semipalmatus
Centropristis philadelphica
Chaetodipterus faber
Charadrius alexandrinus
Charadrius melodus
Charadrius semipalmatus
Charadrius vociferus
Charadrius wilsonia
Chen caerulescens
Chlidonias niger
Circus cyaneus
Clangula hyemalis
Coturnicops noveboracensis
Crassostrea virginica
Cynoscion arenarius
Cynoscion nebulosus
Cynoscion nothus

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Cynoscion sp.
Cyprinodon variegatus
Dorosoma cepedianum
Dorosoma petenense
Egretta caerulea
Egretta rufescens
Egretta thula
Egretta tricolor
Elops saurus
Eucinostomus argenteus
Eudocimus albus
Euthynnus alletteratus
Falco peregrinus
Fulica americana
Fundulus confluentus
Fundulus grandis
Fundulus similis
Gallinula chloropus
Gavia immer
Grus canadensis pulla
Haematopus palliatus
Haliaeetus leucocephalus
Harengula jaguana
Hexagrammos stelleri
Hyporhamphus unifasciatus
Ictalurus furcatus
Ictalurus punctatus
Ixobrychus exilis
Lagodon rhomboides
Larus argentatus
Larus atricilla
Larus delawarensis
Larus philadelphia
Laterallus jamaicensis
Leiostomus xanthurus
Lepomis macrochirus
Lepomis megalotis
Lepomis microlophus
Lepomis punctatus miniatus
Lophodytes cucullatus
Lucania parva
Lutjanus campechanus

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Lutjanus griseus
Lutjanus synagris
Lutra canadensis
Malaclemys terrapin pileata
Megalops atlanticus
Membras martinica
Menidia beryllina
Menippe spp.
Menticirrhus americanus
Menticirrhus littoralis
Menticirrhus saxatilis
Mercenaria campechiensis
Mergus serrator
Micropogonias undulatus
Micropterus salmoides
Morone saxatilis
Morus bassanus
Mugil cephalus
Mugil curema
Mustela vison
Mycteroperca microlepis
Myocastor coypus
Nerodia clarkii
Notropis spp.
Nyctanassa violacea
Nycticorax nycticorax
Ondatra zibethicus
Opisthonema oglinum
Orthopristis chrysoptera
Pandion haliaetus
Paralichthys albigutta
Paralichthys lethostigma
Pelecanus erythrorhynchos
Pelecanus occidentalis
Penaeus aztecus
Penaeus duorarum
Penaeus setiferus
Peprilus alepidotus
Peprilus burti
Phalacrocorax auritus
Pluvialis squatarola
Podiceps auritus

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

Podilymbus podiceps
Poecilia latipinnaa
Pogonias cromis
Pomatomus saltatrix
Porphyrula martinica
Procyon lotor
Rachycentron canadum
Rallus elegans
Rallus longirostris
Rangia cuneata
Rhizoprionodon terraenovae
Rynchops niger
Sciaenops ocellatus
Scomberomorus cavalla
Scomberomorus maculatus
Stellifer lanceolatus
Sterna antillarum
Sterna caspia
Sterna fuscata
Sterna maxima
Sterna sandvicensis
Sus scrofa
Trachinotus carolinus
Trachurus lathami
Urophycis floridanus
Urophycis regius

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

ELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Biological element

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
BIRD	Birds
FISH	Fish
HABITAT	Habitats and Rare Plants
INVERT	Invertebrates
REPTILE	Reptiles and Amphibians
T_MAMMAL	Terrestrial Mammals

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

SUBELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Species subgroup

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:

alligator
anadromous
clam
crab
diving
gull_tern
oyster
pelagic
raptor
sav
scallop
shorebird
shrimp
small mammal
snake
special
turtle
wading
waterfowl

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
NHP

5.1.2.2. ATTRIBUTE DEFINITION:
This field is blank because no NHP information was gathered when this atlas was published. The field is included here to maintain consistency with the latest ESI data structure.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
	Not supplied with this atlas

5.1.2.1. ATTRIBUTE LABEL:
DATE_PUB

5.1.2.2. ATTRIBUTE DEFINITION:
This field is blank because no NHP information was gathered when this atlas was published. The field is included here to maintain consistency with the latest ESI data structure.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
	Not supplied with this atlas

5.1.2.1. ATTRIBUTE LABEL:
EL_SPE

5.1.2.2. ATTRIBUTE DEFINITION:
Concatenation of the first character of the ELEMENT and the SPECIES_ID, which provides the link from the BIORES table.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

This page intentionally left blank

5.1. DETAILED DESCRIPTION: STATUS

The data table STATUS identifies the species that are listed as either threatened or endangered on state or federal lists.

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
Attributes	ELEMENT	character
	SPECIES_ID	integer
	STATE	character
	S_F	character
	T_E	character
	DATE_PUB	integer
	EL_SPE	character

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ELEMENT

5.1.2.2. ATTRIBUTE DEFINITION:

Major categories of biological data

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
BIRD	Birds
FISH	Fish
HABITAT	Habitats and Rare Plants
INVERT	Invertebrates
REPTILE	Reptiles and Amphibians
T_MAMMAL	Terrestrial Mammals

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:
SPECIES_ID

5.1.2.2. ATTRIBUTE DEFINITION:
Numeric identifier for each species and is unique within each element and refers to a nationwide ESI species list maintained by NOAA

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:
STATE

5.1.2.2. ATTRIBUTE DEFINITION:
Two-letter state abbreviation

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
MI	Mississippi

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:
Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:
nominal

5.1.2.1. ATTRIBUTE LABEL:

S_F

5.1.2.2. ATTRIBUTE DEFINITION:

State and Federal status

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
F	Federally listed
S	State listed
S/F	State and Federally listed

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

USFWS

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

T_E

5.1.2.2. ATTRIBUTE DEFINITION:

Threatened and endangered status

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
E	Endangered
E/E	Endangered on State and Federal lists
E/T	Endangered on State lists; Threatened on Federal lists
T	Threatened
T/E	Threatened on State lists; Endangered on Federal lists

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

USFWS

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

DATE_PUB

5.1.2.2. ATTRIBUTE DEFINITION:

This is the date the atlas was published when the given state and federal listings were in effect. In some of the earlier atlases, no date may be given because this was not a data item at the time of original publication.

5.1.2.1. ATTRIBUTE LABEL:

EL_SPE

5.1.2.2. ATTRIBUTE DEFINITION:

Concatenation of the first character of the ELEMENT and the SPECIES_ID, which provides the link from the BIORES and SPECIES tables.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1. DETAILED DESCRIPTION: T_MAMMAL

The data layer T_MAMMAL contains the polygons with terrestrial mammal species. The following T_MAMMAL species are found in the Mississippi data set:

SPECIES ID	NAME
8	River otter
36	Bearer
37	Muskrat
38	Mink
43	Nutria
44	Northern raccoon
100	Wild hog

5.1.1. ENTITY TYPES:

5.1.1.1. ENTITY TYPE LABEL:	5.1.1.2. ENTITY TYPE DEFINITION:	
GT-Polygons	ID	integer
	RARNUM	integer

5.1.2. ATTRIBUTES:

5.1.2.1. ATTRIBUTE LABEL:

ID

5.1.2.2. ATTRIBUTE DEFINITION:

A unique identifier that links to the BIO_LUT table. ID is a concatenation of atlas number (32), element number (4), and record number. ID values of 9999 are holes in polygons and do not contain information.

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

Research Planning, Inc.

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

5.1.2.1. ATTRIBUTE LABEL:

RARNUM

5.1.2.2. ATTRIBUTE DEFINITION:

An identifier that links directly to the BIORES table or the flat format BIOFILE table

5.1.2.3. ATTRIBUTE DEFINITION SOURCE:

NOAA

5.1.2.4.1.1. ENUMERATED DOMAIN VALUE:	5.1.2.4.1.2. ENUMERATED DOMAIN VALUE DEFINITION:
1-N	Unique number

5.1.2.4.1.3. ENUMERATED DOMAIN VALUE DEFINITION SOURCE:

NOAA

5.1.2.5. ATTRIBUTE UNITS OF MEASUREMENT:

nominal

6.0. DISTRIBUTION INFORMATION

6.1. DISTRIBUTOR

6.1.1. CONTACT PERSON PRIMARY

6.1.1.1. CONTACT PERSON:

John Kaperick

6.1.1.2. CONTACT ORGANIZATION:

NOAA, Office of Response and Restoration

6.1.4. CONTACT ADDRESS

6.1.4.1. ADDRESS TYPE:

Physical Address

6.1.4.2. ADDRESS:

7600 Sand Point Way N.E.

6.1.4.3. CITY:

Seattle

6.1.4.4. STATE OR PROVINCE:

WA

6.1.4.5. POSTAL CODE:

98115-6349

6.1.5. CONTACT VOICE TELEPHONE:

(206) 526-6400

6.1.7. CONTACT FACSIMILE TELEPHONE:

(206) 526-6329

6.2. RESOURCE DESCRIPTION:

ESI Atlas for Mississippi

6.3. DISTRIBUTION LIABILITY:

Although these data have been processed successfully on a computer system at the National Oceanic and Atmospheric Administration, no warranty, expressed or implied, is made by NOAA regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. NOAA warrants the delivery of this product in computer-readable format, and will offer a replacement copy of the product when the product is determined unreadable by computer-input peripherals, or when the physical medium is delivered in damaged condition.

6.5. CUSTOM ORDER PROCESS

Contact NOAA for distribution options (see 6.1.1.).

This page intentionally left blank

7.0. METADATA REFERENCE INFORMATION

7.1. METADATA DATE:
200009

7.2. METADATA REVIEW DATE:
200009

7.4. METADATA CONTACT

7.4.1. CONTACT PERSON PRIMARY

7.4.1.1. CONTACT PERSON:
Jill Petersen

7.4.1.2. CONTACT ORGANIZATION:
NOAA, Office of Response and Restoration

7.4.3. CONTACT POSITION:
GIS Manager

7.4.4. CONTACT ADDRESS

7.4.4.1. ADDRESS TYPE:
Physical Address

7.4.4.2. ADDRESS:
7600 Sand Point Way N.E.

7.4.4.3. CITY:
Seattle

7.4.4.4. STATE OR PROVINCE:
Washington

7.4.4.5. POSTAL CODE:
98115-6349

7.4.5. CONTACT VOICE TELEPHONE:
(206) 526-6944

7.4.7. CONTACT FACSIMILE TELEPHONE:
(206) 526-6329

7.4.8. CONTACT ELECTRONIC MAIL ADDRESS:
jill_petersen@hazmat.noaa.gov.us

7.5. METADATA STANDARD NAME:
Content Standards for Digital Geospatial Metadata

7.6. METADATA STANDARD VERSION:
19940608

This page intentionally left blank